

CLAIMS

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1. An auto-focusing apparatus comprising:
an image pickup section which has an imaging plane
on which a subject image is formed, and generates
5 an image signal; and

a focusing section for selectively executing
an ordinary mode of reading an image signal from an
entire imaging plane of said image pickup section and
performing focusing at an ordinary frame rate and
10 a high speed mode of reading an image signal from
a predetermined portion of the imaging plane of said
image pickup section and performing focusing at a high
speed frame rate.

2. An apparatus according to claim 1, wherein
15 said focusing section determines brightness of a
subject on the basis of the image signal, and selects
the high speed mode and the ordinary mode in accordance
with a first brightness and a second brightness lower
than the first brightness, respectively.

20 3. An apparatus according to claim 1, wherein
said focusing section detects a battery remaining
quantity, and selects the high speed mode and the
ordinary mode in accordance with a first magnitude of
the remaining quantity and a second magnitude lower
25 than the first magnitude, respectively.

4. An apparatus according to claim 1, wherein
said focusing section operates in the high speed mode

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first, and then operates in the ordinary mode when an in-focus state cannot be set in the high speed mode.

5. An apparatus according to claim 1, wherein said image pickup section includes a focusing lens for focusing a subject image on the imaging plane, drives the focusing lens at an ordinary frame rate in the ordinary mode, and drives the focusing lens at a high speed frame rate in the high speed mode.

6. An apparatus according to claim 5, wherein said focusing section drives the focusing lens at 1/30-sec intervals in the ordinary mode, and drives the focusing lens at 1/60-sec intervals in the high speed mode.

7. An apparatus according to claim 5, wherein said focusing section calculates an evaluation value in an in-focus state on the basis of an image signal from the entire imaging plane, and sets the focusing lens at a position corresponding to a peak of a plurality of evaluation values obtained with movement of the focusing lens in the ordinary mode.

8. An apparatus according to claim 5, wherein said focusing section calculates an evaluation value in an in-focus state on the basis of an image signal from a central portion of the imaging plane, and sets the focusing lens at a position corresponding to a peak of a plurality of evaluation values obtained with movement of the focusing lens in the high speed mode.

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13. An apparatus according to claim 1, wherein

said focusing section includes an evaluation value memory for storing an autofocus evaluation value, and means for accessing said evaluation value memory from address 0 regardless of whether said focusing section is driven in the ordinary mode or the high speed mode.

14. An apparatus according to claim 1, wherein said focusing section includes a display unit for displaying a picture, and means for always displaying an image obtained immediately before setting of the high speed mode on said display unit in the high speed mode, and displaying a motion picture on said display unit in the ordinary mode.

15. An apparatus according to claim 1, wherein said focusing section sets the number of frames driven at a high speed frame rate to an even number when the high speed mode is switched to the ordinary mode.

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